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EXAMINER

BAUGH, APRIL L

ART UNIT PAPER NUMBER

2143

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Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/500,698

Applicant(s)

BULKOWSKI, BRIAN

Examiner

April L Baugh

Art Unit

2158

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-55 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-55 is/are rejected.
- 7) ☒ Claim(s) 38 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 09 February 2000 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

**Priority under 35 U.S.C. §§ 119 and 120**

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4-6 & 11.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☒ Other: *See Continuation Sheet*.

Continuation of Attachment(s) 6). Other: Notice to file missing parts of nonprovisional application.

## **DETAILED ACTION**

### ***Drawings***

1. This application has been filed with informal drawings which are acceptable for examination purposes only. Formal drawings will be required when the application is allowed.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: reference 599 on pg.23, line 11. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
3. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: Fig.1, reference 100 and Fig. 6, reference 699. A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

### ***Specification***

4. Claim 38 objected to because of the following informalities: on pg.34, line 3 of claim 38 'claim 6' should be 'claim 16'. Appropriate correction is required.
5. The disclosure is objected to because of the following informalities: on pg. 13, line 12 'transmitted formatted' is a grammatical error.

Art Unit: 2158

Appropriate correction is required.

***Claim Rejections - 35 USC § 112***

6. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

7. Claim 35 rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention.

Within claim 35 on pg. 33, line 11 'UDP packet' is not defined in the specification.

***Claim Rejections - 35 USC § 102***

8. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) do not apply to the examination of this application as the application being examined was not (1) filed on or after November 29, 2000, or (2) voluntarily published under 35 U.S.C. 122(b). Therefore, this application is examined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

Art Unit: 2158

9. Claim 37 rejected under 35 U.S.C. 102(e) as being unpatentable by US Patent No. 5,918,229.

Regarding claim 37, Davis et al. teaches a memory including a data structure (column 3, lines 20-21) including a First-level Name Table; and a data object locator table (column 2, lines 21-23 and column 4, lines 39-42).

***Claim Rejections - 35 USC § 103***

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. Claims 1-4, 8-13, 15-18, 19-23, 25-34, 37-40, 42-55 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,973,681 to Tanigawa et al. in view of Davis et al.

Regarding claim 1, Tanigawa et al. teaches a method for receiving data (column 5, line 65) over a broadcast medium (column 1, lines 11-12), comprising the steps of: said desired data object being associated with a first-level name; obtaining a plurality of second-level names associated with said first-level name, said plurality of second-level names being associated with a plurality of low-level data to objects constituting a portion of said desired data object; for each one of said plurality of second-level names, performing the steps of: obtaining location information associated with said second-level name; and obtaining data associated with the low-level data object associated with said each one of said plurality of second-level names responsive to said location information (column 2, lines 24-29).

Art Unit: 2158

Tanigawa et al. does not teach receiving a request for an object. Davis et al. teaches receiving a request for a desired data object (column 1, line 16 and 61-62). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by receiving a request for a desired data object because a request must be received so that the proper lower-level objects are selected to combine into the desired object.

Referring to claim 2, 23, and 40, Tanigawa et al. teaches the method of claim 1, 22, and 39 (column 1, lines 11-12 and column 2, lines 24-29 and column 5, line 65).

Tanigawa et al. does not teach said desired data object is a web page. Davis et al. teaches said desired data object is a web page (column 3, lines 7-9). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by having said desired data object be a web page because this is a format of information transmitted over a network.

Referring to claim 4, Tanigawa et al. teaches the method of claim 1 (column 1, lines 11-12 and column 2, lines 24-29 and column 5, line 65).

Tanigawa et al. does not teach said desired data object is a word processing file. Davis et al. teaches said desired data object is a word processing file (column 1, lines 35-36). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by having said desired data object be a word processing file because this is a format of information transmitted over a network.

Art Unit: 2158

Regarding claim 8, Tanigawa et al. teaches the method of claim 1 (column 1, lines 11-12 and column 2, lines 24-29 and column 5, line 65).

Tanigawa et al. does not teach said broadcast medium is a portion of a computer network. Davis et al. teaches said broadcast medium is a portion of a computer network (column 1, line 24). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by having said broadcast medium be a portion of a computer network because a network is a medium in which information can be broadcasted to many users.

Referring to claim 13, Tanigawa et al. teaches the method of claim 1 (column 1, lines 11-12 and column 2, lines 24-29 and column 5, line 65).

Tanigawa et al. does not teach said second-level name takes a minimal amount of storage space. Davis et al. teaches said second-level name takes a minimal amount of storage space (column 4, lines 39-46). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by having said second-level name take a minimal amount of storage space because this reserves storage space that the system can use in other ways.

Regarding to claim 15, Tanigawa et al. teaches the method of claim 1 (column 1, lines 11-12 and column 2, lines 24-29 and column 5, line 65).

Tanigawa et al. does not teach said second-level name is an index into a table. Davis et al. teaches said second-level name is an index into a table (column 2, lines 21-23). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by



Art Unit: 2158

having said second-level name be an index into a table because this is a simplified and organized way of finding information about lower-level objects.

Referring to claim 16, 26, and 43, Tanigawa et al teaches the method of claim 1, 22, and 39 (column 1, lines 11-12 and column 2, lines 24-29 and column 5, line 65).

Tanigawa et al. does not teach said location information is accessed through a memory containing a data structure. Davis et al. teaches said location information is accessed through a memory containing a data structure (column 3, lines 20-21). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by having said location information be accessed through a memory containing a data structure because this is a simplified and organized way of finding lower-level objects' location information.

Regarding claim 17, 27, and 44, Tanigawa et al. teaches the method of claim 1, 22, and 39 (column 1, lines 11-12 and column 2, lines 24-29 and column 5, line 65).

Tanigawa et al. does not teach said location information is sufficient to locate said data in a data stream. Davis et al. teaches said location information (column 4, lines 39-42) is sufficient to locate said data in a data stream (column 3, lines 65-67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by having said location information be sufficient to locate said data in a data stream because this is a simplified, organized, and quick way of finding lower-level objects'.

Referring to claim 22, Tanigawa et al. teaches a method for receiving data (column 5, line 65) over broadcast media (column 1, lines 11-12), comprising the steps of said desired data

Art Unit: 2158

object being associated with a first-level name; looking up said first-level name in a First-level Name Table; obtaining a plurality of second-level names associated with said first-level name responsive to the step of looking, and for each one of said plurality of second-level names so obtained, performing the steps of looking up each said second-level name in a Low-level Data Object Locator Table, obtaining location information associated with said each said second-level name, obtaining data responsive to said location information (column 2, lines 24-29).

Tanigawa et al. does not teach receiving a request for an object. Davis et al. teaches receiving a request for a desired data object (column 1, line 16 and 61-62). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by receiving a request for a desired data object because a request must be received so that the proper lower-level objects are selected to combine into the desired object.

Regarding claim 31, Tanigawa et al. teaches a method for organizing data for transmission over broadcast media (column 3, lines 1-6), comprising the steps of: associating a first-level name with said data; organizing said data into a plurality of data objects; for each one of said plurality of data objects, performing the steps of associating a second-level name with said each one of said plurality of data objects; associating a data location with, said second-level name; and assigning said data object to be broadcast in said data location (column 2, lines 24-29 and 50-54).

Tanigawa et al. does not teach of transmission in a data stream. Davis et al. teaches organizing data for transmission in a data stream (column 3, lines 65-67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by

Art Unit: 2158

organizing data for transmission in a data stream because the proper lower-level objects must be selected and combined so that the data object that is transmitted is the one desired by the requestor.

Regarding claim 39, Tanigawa et al. teaches an apparatus having at least one memory (column 6, line 2) for receiving data over a broadcast medium (column 2, line 7 and column 3, lines 1-6), said apparatus includes: said desired data object being associated with a first-level name; a second mechanism configured to obtain a plurality of second level names associated with said first-level name, said plurality of second-level names being associated with a plurality of low-level data objects constituting a portion of said desired data objects; a third mechanism configured to obtain location information responsive to each one of said plurality of second-level names; and a fourth mechanism configured to obtain data associated with the data object associated with said each one of said plurality of second-level names responsive to said location information (column 2, lines 24-29 and 50-54).

Tanigawa et al. does not teach receiving a request for an object or at least one processor. Davis et al. teaches a first mechanism configured to receive a request for a desired data object (column 1, line 16 and 61-62) and at least one processor and at least one memory coupled to said at least one processor (column 5, lines 44-48). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by having at least one processor and at least one memory coupled to said at least one processor and receiving a request for a desired data object because a processor is needed to process the software instructions of the system and a

Art Unit: 2158

request must be received so that the proper lower-level objects are selected to combine into the desired object.

Referring to claim 48, Tanigawa et al. teaches an apparatus having at least one memory (column 6, line 2) for receiving data over broadcast media (column 2, line 7 and column 3, lines 1-6), said apparatus includes: said desired data object being associated with a first-level name; a lookup mechanism configured to look up said first-level name in a First-level Name Table; an obtain mechanism configured to obtain a plurality of second-level names associated with said first-level name responsive to said lookup mechanism; a second lookup mechanism configured to lookup each of said plurality of second level names; a second obtain mechanism configured to obtain location information associated with said each said second-level name; a third obtain mechanism configured to obtain data responsive to said location information (column 2, lines 24-29 and 50-54).

Tanigawa et al. does not teach of at least one processor or a mechanism configured to receive a request for an object. Davis et al. teaches having at least one processor and at least one memory coupled to said at least one processor (column 5, lines 44-48) and a reception mechanism configured to receive a request for a desired data object (column 1, line 16 and 61-62). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by having at least one processor and at least one memory coupled to said at least one processor and a reception mechanism configured to receive a request for a desired data object because a processor is needed to process the software instructions of the system and a

request must be received so that the proper lower-level objects are selected to combine into the desired object.

Referring to claim 49, Tanigawa et al. teaches an apparatus having at least one memory (column 6, line 2) for organizing data for transmission over broadcast media (column 2, line 7 and column 3, lines 1-6), said apparatus includes: a first association mechanism configured to associate a first-level name with said data; an organization mechanism configured to associate a second-level name with each one of said plurality of data objects; an second association mechanism configured to associate a second-level name with each one of said plurality of data objects; a third association mechanism configured to associate a data location with said second-level name; and an assign mechanism configured to assign said data object to be broadcast in said data location (column 2, lines 24-29 and 50-54).

Tanigawa et al. does not teach of at least one processor or transmission in a data stream. Davis et al. teaches having at least one processor and at least one memory coupled to said at least one processor (column 5, lines 44-48) and organizing data for transmission in a data stream (column 3, lines 65-67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by having at least one processor and at least one memory coupled to said at least one processor and organizing data for transmission in a data stream because a processor is needed to process the software instructions of the system and the proper lower-level objects must be selected and combined so that the data object that is transmitted is the one desired by the requestor.

Regarding claim 50, Tanigawa et al. teaches a computer program product including: a computer usable storage medium having computer readable code embodied therein for causing a computer to receive data over a broadcast medium (column 2, lines 7-8 and column 3, lines 1-6), said computer readable code includes: said desired data object being associated with a first-level name; computer readable program code configured to cause said computer to effect a second mechanism configured to obtain a plurality of second level names associated with said first-level name, said plurality of second-level names being associated with a plurality of low-level data objects constituting a portion of said desired data objects; computer readable program code configured to cause said computer to effect a third mechanism configured to obtain location information responsive to each one of said plurality of second-level names; and computer readable program code configured to cause said computer to effect a fourth mechanism configured to obtain data associated with the data object associated with said each one of said plurality of second-level names responsive to said location information (column 2, lines 24-29 and 50-54).

Tanigawa et al. does not teach a first mechanism configured to receive a request for an object. Davis et al. teaches computer readable program code configured to cause said computer to effect a first mechanism configured to receive a request for a desired data object (column 1, line 16 and 61-62). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by having a computer readable program code configured to cause said computer to effect a first mechanism configured to receive a request for a desired data object

Art Unit: 2158

because a request must be received so that the proper lower-level objects are selected to combine into the desired object.

Referring to claim 51, Tanigawa et al. teaches a computer program product including: a computer usable storage medium having computer readable code embodied therein for causing a computer to receive data over broadcast media (column 2, lines 7-8 and column 3, lines 1-6), said computer readable code includes: said desired data object being associated with a first-level name; computer readable program code configured to cause said computer to effect a lookup mechanism configured to look up said first-level name in a First-level Name Table; computer readable program code configured to cause said computer to effect an obtain mechanism configured to obtain a plurality of second-level names associated with said first-level name responsive to said lookup mechanism; computer readable program code configured to cause said computer to effect a second lookup mechanism configured to lookup each of said plurality of second-level names; computer readable program code configured to cause said computer to effect a second obtain mechanism configured to obtain location information associated with said each said second-level name; computer readable program code configured to cause said computer to effect a third obtain mechanism configured to obtain data responsive to said location information (column 2, lines 24-29 and 50-54).

Tanigawa et al. does not teach a first mechanism configured to receive a request for an object. Davis et al. teaches computer readable program code configured to cause said computer to effect a first mechanism configured to receive a request for a desired data object (column 1, line 16 and 61-62). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast

Art Unit: 2158

wave of Tanigawa et al. by having a computer readable program code configured to cause said computer to effect a first mechanism configured to receive a request for a desired data object because a request must be received so that the proper lower-level objects are selected to combine into the desired object.

Regarding claim 52, Tanigawa et al. teaches a computer program product including: a computer usable storage medium having computer readable code embodied therein for causing a computer to organize data for transmission over broadcast media (column 2, lines 7-8 and column 3, lines 1-6), said apparatus includes: computer readable program code configured to cause said computer to effect a first association mechanism configured to associate a first-level name with said data; computer readable program code configured to cause said computer to effect an organization mechanism configured to associate a second-level name with each one of said plurality of data objects; computer readable program code configured to cause said computer to effect an second association mechanism configured to associate a second-level name with each one of said plurality of data objects; computer readable program code configured to cause said computer to effect a third association mechanism configured to associate a data location with said second level name; and computer readable program code configured to cause said computer to effect an assign mechanism configured to assign said data object to be broadcast in said data location (column 2, lines 24-29 and 50-54).

Tanigawa et al. does not teach transmission in a data stream. Davis et al. teaches organizing data for transmission in a data stream (column 3, lines 65-67). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by



Art Unit: 2158

organizing data for transmission in a data stream because the proper lower-level objects must be selected and combined so that the data object that is transmitted is the one desired by the requestor.

Referring to claim 53, Tanigawa et al. teaches a computer program product including: a computer data signal embodied in a carrier wave (column 4, lines 27-31) having computer readable code embodied therein for causing a computer to receive data over a broadcast medium (column 2, lines 7-8 and column 3, lines 1-6), said computer readable code includes: said desired data object being associated with a first-level name; computer readable program code configured to cause said computer to effect a second mechanism configured to obtain a plurality of second level names associated with said first-level name, said plurality of second-level names being associated with a plurality of low-level data objects constituting a portion of said desired data objects; computer readable program code configured to cause said computer to effect a third mechanism configured to obtain location information responsive to each on of said plurality of second-level names; and computer readable program code configured to cause said computer to effect a fourth mechanism configured to obtain data associated with the data object associated with said each one of said plurality of second-level names responsive to said location information (column 2, lines 24-29 and 50-54).

Tanigawa et al. does not teach a first mechanism configured to receive a request for an object. Davis et al. teaches computer readable program code configured to cause said computer to effect a first mechanism configured to receive a request for a desired data object (column 1, line 16 and 61-62). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast

Art Unit: 2158

wave of Tanigawa et al. by having a computer readable program code configured to cause said computer to effect a first mechanism configured to receive a request for a desired data object because a request must be received so that the proper lower-level objects are selected to combine into the desired object.

Referring to claim 54, Tanigawa et al. teaches a computer program product including: a computer data signal embodied in a carrier wave (column 4, lines 27-31) having computer readable code embodied therein for causing a computer to receive data over broadcast media (column 2, lines 7-8 and column 3, lines 1-6), said computer readable code includes: said desired data object being associated with a first-level name; computer readable program code configured to cause said computer to effect a lookup mechanism configured to look up said first-level name in a First-level Name Table; computer readable program code configured to cause said computer to effect an obtain mechanism configured to obtain a plurality of second-level names associated with said first-level name responsive to said lookup mechanism; computer readable program code configured to cause said computer to effect a second lookup mechanism configured to lookup each of said plurality of second-level names; computer readable program code configured to cause said computer to effect a second obtain mechanism configured to obtain location information associated with said each said second-level name; computer readable program code configured to cause said computer to effect a third obtain mechanism configured to obtain data responsive to said location information (column 2, lines 24-29 and 50-54).

Tanigawa et al. does not teach a first mechanism configured to receive a request for an object. Davis et al. teaches computer readable program code configured to cause said computer to effect a first mechanism configured to receive a request for a desired data object (column 1,

Art Unit: 2158

line 16 and 61-62). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by having a computer readable program code configured to cause said computer to effect a first mechanism configured to receive a request for a desired data object because a request must be received so that the proper lower-level objects are selected to combine into the desired object.

Regarding claim 55, Tanigawa et al. teaches a computer program product including: a computer data signal embodied in a carrier wave (column 4, lines 27-31) having computer readable code embodied therein for causing a computer to organize data for transmission over broadcast media (column 2, lines 7-8 and column 3, lines 1-6), said apparatus includes: computer readable program code configured to cause said computer to effect a first association mechanism configured to associate a first-level name with said data; computer readable program code configured to cause said computer to effect an organization mechanism configured to associate a second-level name with each one of said plurality of data objects; computer readable program code configured to cause said computer to effect an second association mechanism configured to associate a second-level name with each one of said plurality of data objects; computer readable program code configured to cause said computer to effect a third association mechanism configured to associate a data location with said second-level name; and computer readable program code configured to cause said computer to effect an assign mechanism configured to assign said data object to be broadcast in said data location (column 2, lines 24-29 and 50-54).

Tanigawa et al. does not teach transmission in a data stream. Davis et al. teaches organizing data for transmission in a data stream (column 3, lines 65-67). Therefore, it would

Art Unit: 2158

have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by organizing data for transmission in a data stream because the proper lower-level objects must be selected and combined so that the data object that is transmitted is the one desired by the requestor.

Regarding claim 3, Tanigawa et al. teaches the method of claim 2 wherein said web page comprises a multi-screen web page (column 1, lines 20-27).

Referring to claim 9, Tanigawa et al. teaches the method of claim 1 wherein said first-level name is a uniform resource locator (URL) (column 1, lines 30-31).

Regarding claim 10, 25, and 42, Tanigawa et al. teaches the method of claim 1, 22, and 39 wherein said first-level name is a web page title (column 4, lines 63-64).

Referring to claim 11, Tanigawa et al. teaches the method of claim 1 wherein said first-level name is a text string (column 1, lines 30-31).

Regarding claim 12, Tanigawa et al. teaches the method of claim 11 wherein said text string is associated with an icon (column 1, lines 30-34).

Referring to claim 18, Tanigawa et al. teaches the method of claim 17 wherein said location information comprises an MPEG table (column 20, lines 65-67 through column 21, lines 1-6).

Regarding claim 19, 28, and 45, Tanigawa et al. teaches the method of claim 1, 22, and 39, including the further step of combining said plurality of low-level data objects (column 2, lines 50-58 and 63-64).

Art Unit: 2158

Referring to claim 20, 29, and 46, Tanigawa et al. teaches the method of claim 19, 28, and 45 wherein the step of combining results in a portion of said desired data object (column 2, lines 50-58 and 63-64).

Regarding claim 21, 30, and 47, Tanigawa et al. teaches the method of claim 20, 22, and 39, including the further step of presenting said desired data object (column 4, lines 27-30).

Referring to claim 32, Tanigawa et al. teaches the method of claim 31, including the farther step of broadcasting (column 3, line 67 through column 4, line 1) said each one of said plurality of data objects in said data location (column 2, lines 24-25).

Regarding claim 33, Tanigawa et al. teaches the method of claim 32, wherein said each one of said plurality of data objects is broadcast as an MPEG section (column 20, lines 56-57).

Referring to claim 34, Tanigawa et al. teaches the method of claim 32, wherein said each one of said plurality of data object is formatted for transmission as an MPEG section (column 20, lines 45-48).

12. Claims 5-7, 24, 38, and 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,973,681 to Tanigawa et al. in view of Davis et al. as applied to claims 1-4, 8-13, 15-18, 19-23, 25-34, 37-40, 42-55 above, and further in view of Moura et al.

Regarding claims 5, 24, and 41, Tanigawa et al. in view of Davis et al. teaches the method of claim 1, 22, and 39 (column 1, lines 11-12 and column 2, lines 24-29 and column 5, line 65 of Tanigawa et al.).

Tanigawa et al. in view of Davis et al. does not teach said broadcast medium includes a cable. Moura et al. teaches said broadcast medium includes a cable (column 1, lines 15-19).

Therefore, it would have been obvious to one skilled in the art at the time the invention was

Art Unit: 2158

made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. in view of Davis et al. by having said broadcast medium include a cable because this is a means of transmitting information over a network.

Referring to claim 6, Tanigawa et al. in view of Davis et al. teaches the method of claim 5 (column 1, lines 11-12 and column 2, lines 24-29 and column 5, line 65 of Tanigawa et al.).

Tanigawa et al. in view of Davis et al. does not teach said cable is fiber optic cable. Moura et al. teaches said cable is fiber optic cable (column 1, lines 18-19). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. in view of Davis et al. by having said cable be fiber optic cable because this is a means of transmitting high-levels of information over a network

Regarding claim 7, Tanigawa et al. in view of Davis et al. teaches the method of claim 1 (column 1, lines 11-12 and column 2, lines 24-29 and column 5, line 65 of Tanigawa et al.).

Tanigawa et al. in view of Davis et al. does not teach said broadcast medium allows for wireless communication. Moura et al. teaches said broadcast medium allows for wireless communication (column 2, lines 2-4). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. in view of Davis et al. by having said broadcast medium allow for wireless communication because that way users of wireless communication devices are able to receive transmitted information as well.

Referring to claim 38, Tanigawa et al. teaches the data structure of claim 6 (column 1, lines 11-12 and column 2, lines 24-29 and column 5, line 65).

Art Unit: 2158

Tanigawa et al. does not teach a root object locator table. Davis et al. teaches a root object locator table (column 2, lines 21-23 and column 4, lines 39-42). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. by having a root object locator table because this allows quick and simple access to root web pages.

13. Claims 14, 35, and 36 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent No. 5,973,681 to Tanigawa et al. in view of Davis et al. as applied to claims 1-4, 8-13, 15-18, 19-23, 25-34, 37-40, 42-55 above, and further in view of Boon.

Regarding claim 14, Tanigawa et al. in view of Davis et al. teaches the method of claim 1 (column 1, lines 11-12 and column 2, lines 24-29 and column 5, line 65).

Tanigawa et al. in view of Davis et al. does not teach said second-level name is an integer. Boon teaches said second-level name is an integer (column 13, lines 40-41 and 46-47). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. in view of Davis et al. by having said second-level name be an integer because this takes up a minimal amount of memory therefore reserving storage space for other uses in the system.

Referring to claim 35, Tanigawa et al. in view of Davis et al. teaches the method of claim 31 (column 2, lines 24-29 and 50-54 and column 3, lines 1-6).

Tanigawa et al. in view of Davis et al. does not teach said data object is formatted for transmission as an UDP packet. Boon teaches said data object is formatted for transmission as an UDP packet (column 17, lines 65-67). Therefore, it would have been obvious to one skilled in

Art Unit: 2158

the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. in view of Davis et al. by having said data object be formatted for transmission as an UDP packet because UDP is a part of the TCP/IP data transmission packet protocol used within the internet.

Referring to claim 36, Tanigawa et al. in view of Davis et al. teaches a memory including a data structure including a set of entries (column 3, lines 20-21 of Davis et al.), each of said plurality of entries including a text string associated with a first-level name, said first-level name being associated with a desired data object (column 1, lines 30-33 of Tanigawa et al.).

Tanigawa et al. in view of Davis et al. does not teach plurality of integers being associated with a second-level name. Boon teaches a plurality of integers, each of said plurality of integers being associated with a second-level name, each said second-level name being associated with a low-level data object, said plurality of second-level names composing said data object (column 13, line 40-50). Therefore, it would have been obvious to one skilled in the art at the time the invention was made to further modify the data communication system with transmitted broadcast wave of Tanigawa et al. in view of Davis et al. by having a plurality of integers being associated with a second-level name, each said second-level name being associated with a low-level data object, said plurality of second-level names composing said data object because integers use a minimal amount of memory therefore memory is reserved for other uses in the system.

### *Conclusion*

14. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.



Art Unit: 2158

The following patent is cited to further show the state of the art with respect to broadcast distribution using objects and table in general:


US Pat No. 6,049,835 to Gagnon.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to April L Baugh whose telephone number is 703-305-5317. The examiner can normally be reached on Monday-Friday 7:00am-3:30pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A Wiley can be reached on 703-308-5221. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-9149 for regular communications and 703-746-9149 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

ALB  
October 2, 2002

  
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